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Focused antenatal care utilization and associated obstetric factors in public health centers of Addis Ababa

by
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Abbreviations

AOR Adjusted Odds Ratio

AIDS Acquired Immuno Deficiency Syndrome

ANC Ante Natal Care

COR Crude Odds Ratio

CI Confidence Interval

EDHS Ethiopian Demographic Health Survey

FANC Focused Ante Natal Care

HIV Human Immunodeficiency Virus

HC Health Center

MOH Ministry Of Health

OR Odds Ratio

PMTCT Prevention of Mother To Child Transmission

SPSS Statistical Package for Social Science

STI Sexually Transmitted Infections

TT Tetanus Toxoid

WHO World Health Organization

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Abstract

Background: the health care that a woman receives during pregnancy, at the time of delivery and soon after delivery is important for the survival and well-being of both the mother and the baby. Focused ante natal care means that providers focus on assessment and actions needed to make decisions and provide care for each woman's individual situation. In Ethiopia where maternal mortality rate is very high, encouraging the use of modern health care services is an essential public health intervention.

Objective of the study: the main objective of this study is to assess the provision of focused ANC in public health centers of Addis Ababa.

Methods: A cross sectional facility-based study on pregnant mothers attending health centers for antenatal visit was conducted from January 1, 2011 to March 14, 2011. Face-to-face exit interviews were done on a total of 413 subjects who came for antenatal check up using a pre-tested structured questionnaire.

Result: A total of 413 women were enrolled in the study. The study revealed that provision of FANC in the public health centers of Addis Ababa was 40.2% with 95% CI: 35.5, 44.9. No difference was found in the provision of FANC among the obstetric factors of the respondents. This may probably be due to the smallness of sample size that resulted in small number of the cases and low coverage.

Conclusion and recommendation: the study revealed that provision of FANC is low in Addis Ababa. Therefore, further interventions are needed to increase public awareness about utilization of FANC services.

Introduction

Women's loss from maternity-related causes is a significant social and personal tragedy as they play a major role in the rearing of children and the management of family affairs. As estimated by the World Health Organization (WHO), about 580,000 women die each year from complications arising from pregnancy and childbirth [1, 2].

The risk of maternal death in developing countries is estimated to be one in 61; while for the developed countries it is about one in 2800. Inadequate access and under-utilization of modern healthcare services are major reasons for poor maternal health in the developing countries [3].

In Ethiopia, the maternal mortality was estimated to be 673 deaths per 100,000 live births which is among the highest in the world [4]. As emphasized in the 2005 Ethiopian Demographic and Health Survey (EDHS), one explanation for poor health outcomes among women in Ethiopia was the non-use of modern health care services [4].

There is a substantial quality gap in ANC services in sub-Saharan Africa. While coverage of at least one ANC visit is relatively high at 71%, many women attending ANC do not receive the full range of evidence-based components during pregnancy. This quality gap demonstrates key missed opportunities within health systems[5]. Cognizant of this fact, the World Health Organization (WHO) has developed a focused ANC package that includes only counseling, examinations, and tests that serve immediate purposes and have proven health benefit. The new approach to ANC emphasizes the quality of care rather than the quantity. For normal pregnancies WHO recommends only four antenatal visits. This is what is referred to as focused antenatal care.

The major goal of focused antenatal care is to help women maintain normal pregnancies through: Identification of pre-existing health conditions, early detection of complications arising during the pregnancy, health promotion and disease prevention and birth preparedness and complication readiness planning. The package is designed as a job aid for ANC providers. It includes the forms and checklists needed to implement the package and instructions for use. [6]

To promote the health and survival of mothers and babies, Ethiopia has adapted the WHO goal-oriented Antenatal Care (ANC) package, popularly known as focused ANC (FANC) in 2006/2007. The Ministry of Health (MOH) has designed new guidelines for ANC services, placing emphasis on refocusing antenatal care, birth planning and emergency preparedness, and the identification, prevention and management of life threatening complications during pregnancy and childbirth. ANC visits are now used as an entry point for a range of other services, thus promoting comprehensive integrated service delivery.

Despite the importance of FANC, relevant studies are not yet done on its provision status, and obstetric factors that are associated in our country. This study aimed to determine the status of FANC service provision and associated obstetric factors in the public health centers of Addis Ababa.

2. Literature review

2.1 Background

The provision of special care for women during pregnancy through the public health services was a relatively late development in modern obstetrics. In the late 1930s the United Kingdom of Great Britain and Northern Ireland authorities decide that all women should be offered regular check-ups during pregnancy as an integral part of Maternity care, some 30 years after the introduction of formalized labour and delivery care. During the second half of the 20th century, national governments collaborated with technical assistance and donor agencies to ensure that pregnant women in developing countries also had access to maternity care. [7]

In 1978, WHO developed the "risk approach" concept as a managerial tool for maternal and child health care ,in particular for countries where access to medical care was limited.[7]This approach, adopted as a way of identifying which women are most likely to develop serious complications, has been shown to have only limited effectiveness: most women who go on to develop life-threatening complications had no apparent risk factors; conversely, those identified as being at risk generally end up with uneventful deliveries.[3]

In recognition of the potential of care during the antenatal period to improve a range of health outcomes for women and children, the World Summit for Children in 1990 adopted antenatal care as a specific goal, namely “Access by all pregnant women to prenatal care, trained attendants during childbirth and referral facilities for high-risk pregnancies and obstetric emergencies”. Similar aims have been voiced in other major international conferences, including the International Conference on Population and Development in 1994, the Fourth World

Conference on Women in 1995, their five-year follow-up evaluations of progress, and the United Nations General Assembly Special Session on Children in 2002.[7]

In 2001 the World Health Organization (WHO) issued guidance on a new model of antenatal care (ANC) called goal-oriented or focused antenatal care (FANC), for implementation in developing countries.[8] Focused ante natal care means that providers focus on assessment and actions needed to make decisions and provide care for each woman's individual situation. [9] The new model reduces the number of required antenatal visits to four, and provides focused services shown to improve maternal outcomes. FANC eliminates the traditional risk assessments and instead emphasizes helping women to maintain normal pregnancies by identifying existing health conditions, detecting emerging complications, promoting health, preparing for a healthy birth, and educating clients on postpartum care including nutrition, breastfeeding, and family planning. [8]

2.2 The rationale to FANC

The new approach to ANC emphasizes the quality of care rather than the quantity. [1] For normal pregnancies WHO recommends only four antenatal visits with the first visit in the first trimester,(ideally before 12 weeks but no later than16 weeks),and at 24 – 28 weeks for the second visit, at 32 weeks for the third and at 36 weeks for the fourth visit [9].The major goal of focused antenatal care is to help women maintain normal pregnancies through: Identification of pre-existing health conditions, early detection of complications arising during the pregnancy, health promotion and disease prevention, birth preparedness and complication readiness planning.[5]

The updated approach, focused antenatal care, recognizes two key realities: First, frequent visits do not necessarily improve pregnancy outcomes, and in developing countries they are often logistically and financially impossible for women. Second, many women who have risk factors never develop complications, while women without risk factors often do. So, when antenatal care is planned using a risk approach, scarce healthcare resources may be devoted to unnecessary care for high-risk women who never develop complications, and low-risk women may be unprepared to recognize or respond to signs of complications.[10]

The risk approach fails to predict who will go on to develop complications of pregnancy and delivery. Instead, the WHO package includes a classifying form to help providers identify women who have conditions requiring treatment and more frequent monitoring[5.]

The Program does not recommend relying on certain measures and risk indicators that are routine in traditional antenatal care (such as height, ankle edema and fetal position before 36 weeks), because they have not been proven to be effective in improving pregnancy outcomes. Each focused antenatal care visit includes interventions that are appropriate to the woman's stage of pregnancy and that address her overall health and preparation for birth and care of the newborn[10.]

In a study performed in three African countries on adapting focused antenatal care, it has been shown that refocusing ANC has resulted not only in significantly better quality of care, notably in prevention of diseases (e.g., malaria and anemia in pregnancy), promotion of health (e.g., counseling on STI/HIV/AIDS) and continuity of care but also helped clients obtain more comprehensive care. [8]

Trials conducted in Argentina, Cuba, Saudi Arabia, and Thailand proved that FANC was safe and was a more sustainable, comprehensive, and effective ANC model in helping women to maintain normal pregnancies by identifying existing health conditions, detecting emerging complications, promoting health, preparing for a healthy birth, and educating clients on postpartum care including nutrition, breastfeeding, and family planning.[9]

The introduction of Focused ANC in Tanzania appears to have the potential to significantly improve the health of pregnant women and to increase the number of births with skilled attendants [11]

It was found out that Focused ante natal care approach is the best practice in preventing malaria in pregnancy that improves service while also saving time. Besides this, it scales up the management of malaria and syphilis in pregnancy, infection prevention and the integration of services for the PMTCT of HIV. [12, 13, 14, 15]

2.3 Obstetric factors associated with utilization of FANC.

The use of antenatal care is inevitably constrained by the relation ship between different factors one of which is obstetric risk factors of the woman[7].

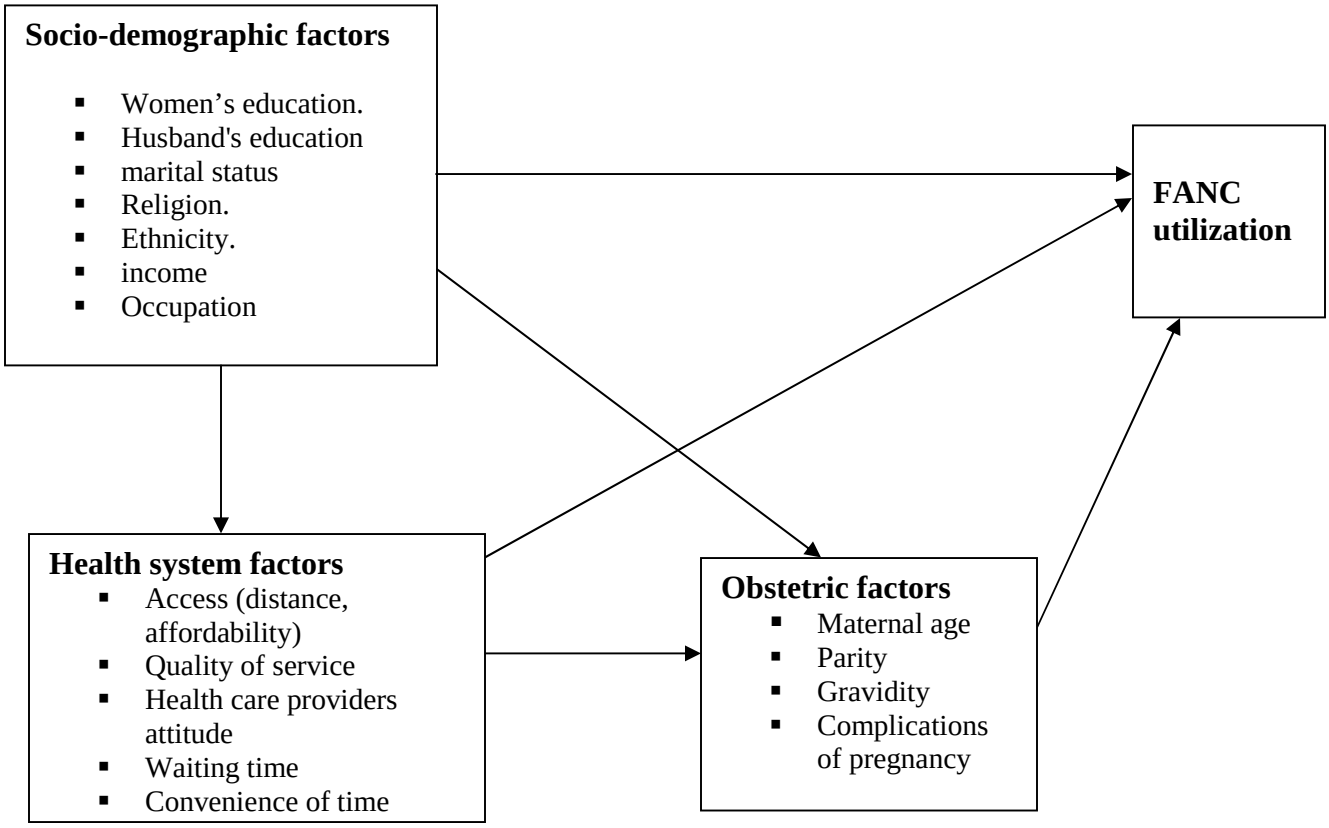
In studies done to assess the outcome of pregnancies when antenatal care has been either totally lacking or low in number of visits, there were significantly higher risk of ante partum complications, more low birth weight infants, pre-term deliveries, more fetal and neonatal deaths and peri-natal mortality [16, 17, & 18.]

Maternal age has shown association with FANC utilization. Women in the age group 15-24 were found to attend ANC larger than that of women in the age group 25-34 (OR = 2.74, 95% CI: 1.37, 4.38)[19.]In contrast to this, statistically significant difference ($p < 0.05$) was observed in ANC attendance when teenagers(60.9%)were compared to the older age group(74.8%) [20].

Another factor that was found to show association was parity (number of births).Higher parity women were less likely to use prenatal care. ANC attendance was documented to be much lower among grandmultipara with 26.4% having absolutely no antenatal care[21, 22]

In a study in Maiduguri, Nigeria, on Risk factors for stillbirths shows that significantly more stillbirths (57.5%) occurred in the un booked mothers compared to those who were booked (42.5%) with an odds ratio of 1.91; CI =0.92-2.05. This is in keeping with the well known fact that non-use of antenatal care facilities is a strong and consistent risk factor for stillbirth. Thus, the risk of stillbirth was much higher for women who did not receive prenatal care compared to those who did[23].

Figure 1 conceptual framework for assessing the factors associated with FANC provision.



Study objectives

General objective:

To assess the provision of focused ANC and factors associated with its utilization in public health centers of Addis Ababa.

Specific objectives:

- To determine the proportion of women who received FANC in public health centers of Addis Ababa.

- To asses the obstetric factors associated with utilizing focused ante natal care

Methods and materials

Study settings: the study was conducted in Addis Ababa, the capital city of Ethiopia, with a population of 3,384,569(3,059,000) according to the 2007 population census. There are 10 public Hospitals of which 4 are central and 6 are federal and around 26 public health centers in the city. The fertility rate of Addis Ababa is 1.4 children per woman and 88.3 % of women utilize ANC. FANC was introduced in 2006/7[4].

Study period: the study was conducted from Jan 25 to Feb 5, 2011.

Study design: the study was quantitative facility based cross sectional survey

Source population: All pregnant women in Addis Ababa city.

Study population: pregnant women who used ANC services in ten public health centers in Addis Ababa city, in the study period.

Sample size determination: the sample size was determined by using the assumptions to estimate sample size of single population proportion.

$$n = (Z\alpha_{/2})^2 \frac{p(1-p)}{d^2}$$

Assumptions:

Prevalence (p) proportion of women who received FANC is 50%.

Desired precision (d) =5%

Confidence level=95% which means: α set at 0.05 and $Z\alpha_{/2}$=1.96

Hence, the calculated sample size was 384 with 10% allowance for possible non-response gave the required minimum sample of (n) 422.

Assuming 50% of pregnant women utilized with FANC are young (<34 years old) with 95%confidence interval, 80%power and 1:1 ratio, sample size was computed using the Epi-info software and was found to be 148 for each groups and a total of 296.When this is compared with the above calculated sample size using 50% coverage of FANC, the previous is found to be larger. There fore the larger sample size, 422 was used because it will provide a better coverage of the study subjects.

Sampling procedure: the study subjects were distributed proportionately to health facilities based on the proportion of ANC clients they serve. Twenty seven (6.3%),62(14.6%),15(3.5%),41(9.7%),47(11%),59(14%),36(8.5%),45(11%),59(14%),and 31(7.3%)women were taken from Gulele HC,Woreda 7 HC,Beletshachew HC,Kirkos HC,Yeka HC,Woreda 17/20 HC,Saris HC , Nifas silk lafto No 2 HC ,Kolfe HC and Shiromeda HC respectively. Interviews were administered after completion of their follow up examination (exit interview).All pregnant women were interviewed.

Table 1 Proportion of women included in the study from each health center Addis Ababa,2011.

Sub city	Health center	Number of women who attended ANC in the previous month	Sample	Percent (%)
Arada	Gulele	150	27	6.3
Addis ketema	Woreda-7	342	62	14.6
Lideta	Beletshachew	86	15	3.5
Kirkos	Kirkos	231	41	9.8
Yeka	Yeka	264	47	11
Akaki kality	Saris	203	36	8.5
Bole	Woreda 17/20	333	59	14
Nifas silk lafto	Nifas silk lafto No 2	251	45	11
Kolfe keraniyo	Kolfe	326	59	14
Gulele	Shiro meda	171	31	7.3
Total		2357	422	100%

Data collection tools: A structured questionnaire first developed in English. After extensive revision, the final version of the English questionnaire was translated to Amharic and then back to English by different translators to ensure understandability and message consistency. The variables in the questionnaire were adopted from EDHS and previous studies.

Data collection procedure: Ten nurse professionals who graduated last year and currently providing free services in different public health centers of Addis Ababa were used to collect the data. The questionnaire was pre-tested on 20 pregnant women attending in a health center that was not included in the study. Findings from the pre-test were utilized in modifying the research data collection tools. A thorough training was given for the interviewers one day before and one day after the pre-test. The supervisor was the principal investigator.

Data quality control: Supervision was carried out through out data collection period. Questionnaires were collected and checked for completeness and consistency. Data was entered using Epi info version3.5.1 and cleared by sorting and running simple frequency.

Variables of the study: the dependent variable is FANC utilization while the independent variables are the obstetric risk factors (maternal age, parity, history of abortion, still birth and neonatal death)

Data management and analysis: the data entered using Epi info was exported to SPSS version 15 computer soft ware and analyzed.Univariate analysis was done and using descriptive statistics frequency distribution such as proportions and percentages were computed.Bivariate analysis was performed to see association between the dependent and independent variables. To identify predictors for the outcome variable, multivariate analysis was done and using logistic regression the effect of confounding was controlled.

Operational definitions: A woman is considered utilizing FANC service if: - she scores 8 and above from ten selected FANC prevalence questions. (Physical examination performed,weight,and blood pressure measured, urine tested, information given on complications of pregnancy and where to go, prescribed to buy iron tablets, TT vaccination given, whether health education was given or not, and instructions given for delivery/plan of birth?)

Ethical consideration: ethical clearance and permission was obtained from the Institutional Review Board of University of Gondar. Communication was made with concerned bodies. Respondents were made to participate based on their willingness and those who are not willing

were excluded from the study and the data collection continued using the replacement sampling technique, until the sample size is reached. Informed oral consent was obtained during data collection.

Each respondent was asked for informed consent. The consent form was prepared in Amharic and includes the purpose of the study, how that specific participant is selected for the study, how much time the interview takes, how confidentiality is assured, the fact that participation is voluntary and the participant can discontinue the interview at anytime s/he likes, and contact the principal investigator. The interview took place in an appropriate place that does not affect the privacy of the respondents.

Results

Socio-demographic characteristics of study participants

Among the 422 pregnant women that were interviewed at the selected health centers, nine women discontinued the interview for different reasons resulting in a response rate of 97.9%. The respondents' age ranged from 14 to 38 years with a mean age of 25.56 $\pm$ 4.52 years. More than half 240 (58.1%) of the respondents were in the age group 25 $^{+}$ years and 165(40%) were primary school in their educational level. One hundred sixty five (40%) of the respondents were Amharas, 282 (68.3%) were orthodox Christian by religion and 364(88.1%) were married. The majority 248 (60.2%) of mothers were house wives and almost half of spouses' occupation197 (49.4%) and 147(35.6%) of educational status fall under private and secondary school respectively.

Table 2.Socio-demographic characteristics of respondents in Addis Ababa public health centers, March, 2011.

Variable	Frequency	Percent (%)
Age of mother		
15-24	173	41.9
25+	240	58.1
Religion		
orthodox	282	68.3
Catholic	3	0.7
Protestant	32	7.7
Muslim	96	23.2
Ethnicity		
Amhara	165	40.0
Oromo	85	20.6
Tigre	27	6.5
Guraghe	112	27.1
others	24	5.8
Educational status		
Illiterate	81	19.6
primary	165	40
secondary	130	31.5
above secondary	37	9
mother's occupation		
house wife	248	60.2
maid servant	23	5.6
civil servant	18	4.4
private(NGO)	72	17.5
Merchant	30	7.3
student	12	2.9
other specify	9	2.2
Marital status		
married	364	88.1
Not married	49	11.9
Husband education		
Illiterate	39	9.4
primary	136	32.9
secondary	147	35.6
above secondary	91	22.0
husband's occupation		
maid servant	15	3.8
civil servant	62	15.5
private(NGO)	197	49.4
Merchant	79	19.8
student	4	1.0
other specify	41	10.3

Obstetric history

From the 413 mothers included in the study, one hundred eighty eight (45.5%) reported previous history of birth and only 37(9.0%) had had history of neonatal death. Fifty nine (14.3%) of the participants reported having history of pregnancy that is miscarried, aborted or ended in a still birth. Concerning the total number of births, the majority 240(58.1%) found to have given birth to one to two children. Half of women (52.6%) in the study who attended ANC services did so for the first time in their third trimester of the pregnancy.

Table 3.Obstetric history of the respondents in Addis Ababa public health centers, March, 20011.

Variable	Frequency	Percent (%)
Previous history of delivery		
Yes	188	45.5
No	225	54.5
History of neonatal death		
Yes	37	9.0
No	376	91.0
History of abortion		
Yes	59	14.3
No	354	85.7
Total number of pregnancies		
1-2	312	75.5
3+	101	24.5
Total number of births		
1-2	173	41.9
3+	240	58.1
Months of pregnancy at first visit		
1-3	30	7.5
4-6	159	39.8
7-9	210	52.6

Provision of FANC

To calculate the prevalence of FANC, 20 questions were asked that address the definition of FANC by WHO. One point is given for yes answers and zero for nos. From these questions ten pertinent questions were selected based on the actual practice of the health workers, i.e. questions that assess the activities routinely performed as part of ANC service. Then the yeses were added up and those women who scored eight and above were considered as provided with FNAC.The investigator preferred to modify the criteria because all the services are not being provided.

Table 4. Questions on provision of FANC in Addis Ababa public health centers, March, 2011.

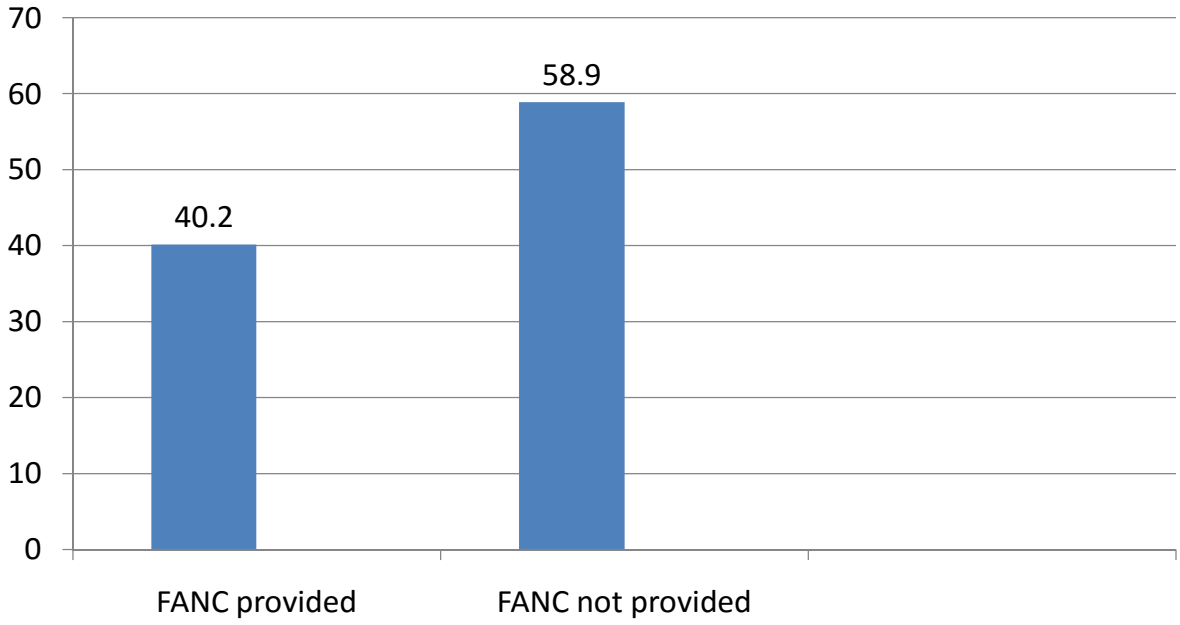
Variable	Frequency	Percent (%)
*Was Physical examination done?		
Yes	255	62.8
No	151	37.2
*Were you weighed?		
Yes	399	96.6
No	14	3.4
Was your height measured?		
Yes	165	40
No	248	60
*Was your blood pressure measured?		
Yes	401	97.1
No	12	2.9
*Did you give a urine sample?		
Yes	396	95.9
No	17	4.1
Did you give a blood sample?		
Yes	403	97.6
No	10	2.4
*Told about signs of pregnancy complications?		
Yes	186	45
No	227	55
*Were you told where to go if you had any of these complications?		
Yes	178	43.1
No	235	56.9
*Were you given TT vaccination?		
Yes	368	89.1
No	45	10.9
*Were you given or did you buy any iron tablets		
Yes	296	71.7
No	117	28.3
*Was health education given during each visit?		
Yes	206	49.9
No	207	50.1
Health education on Pregnancy and child birth		
Yes	65	31.6
No	141	68.4

Health education on Nutrition		
Yes	152	73.8
No	54	26.2
Health education on Personal hygiene		
Yes	131	63.6
No	75	36.4
Health education on STI and HIV prevention		
Yes	139	67.5
No	67	32.5
Health education on Ante natal care		
Yes	41	19.9
No	165	80.1
Health education on Family planning		
Yes	48	23.3
No	158	76.7
Health education on Baby care		
Yes	65	31.6
No	141	68.4
Health education on Breast feeding		
Yes	73	35.4
No	133	64.6
*Were you given instructions for delivery/plan of birth?		
Yes	187	45.3
No	226	54.7

*questions selected to calculate FANC provided.

According to this calculation, the proportion of women who received FANC was found to be 40.2% with 95% CI: 35.5, 44.9.

Provision of FANC in Addis Ababa public health centers, March, 2011.



Socio-demographic factors and provision of FANC

Even though mother's education has shown significant association with utilization of FANC in bi-variate analysis, OR; 0.42 with 95% CI: 0.19, 0.93, the multiple logistic regressions have not shown significant association.

The study also revealed that higher education of the husband is significantly associated with FANC utilization of the mothers. The chance of receiving FANC is by 0.5 times lesser in women whose husbands are in primary level of education than those with above secondary school level OR 0.49; with 95 %CI: 0.25, 0.97.

Table 6.Socio-demographic characteristics and provision of FANC among respondents in Addis Ababa public health centers, March, 2011.

Characteristics	FANC provided		COR(95%CI)	AOR (95%CI)
	Yes	No		
Age of mother				
15-24	74	99	1.00	1.00
25+	92	148	0.83(0.55,1.23)	0.77(0.50,1.19)
Educational status of mother				
Illiterate	29	52	0.42(0.19,0.93)*	0.54(0.20,1.46)
primary	65	100	0.49(0.24,1.01)	0.71(0.30,1.71)
secondary	51	79	0.49(0.23,1.03	0.61(0.26,1.45)
above secondary	21	16	1.00	1.00
mother's occupation				
house wife	99	149	1.00	1.00
maid servant	6	17	0.53(0.20,1.39)	0.29(0.07,1.06)
civil servant	11	7	2.36(0.88,6.30)	1.28(0.40,4.12)
private(NGO)	30	42	1.07(0.63,1.83)	0.72(0.34,1.51)
Merchant	13	17	1.15(0.53,2.47)	0.80(0.31,2.02)
other specify	7	14	0.75(0.29,1.93)	0.61(0.22,1.71)
Marital status				
married	145	219	1.00	1.00
Not married	21	28	1.13(0.62,2.07)	1.41(0.69,2.87)
Husband education				
Illiterate	16	23	0.57(0.26,1.22)	0.59(0.23,1.50)
primary	50	86	0.47(0.27,0.81)*	0.49(0.25,0.97)*
secondary	50	97	0.42(0.24,0.72)*	0.42(0.23,0.79)**
above secondary	50	41	1.00	1.00
Income(mother)				
<500	48	77	0.98(0.62,1.54)	1.23(0.65,2.33)
501-1000	24	25	1.51(0.81,2.82)	1.55(0.69,3.47)
1001-1500	6	6	1.58(0.49,5.05)	1.10(0.29,4.15)
>1501	88	139	1.00	1.00
Husband income				
<500	34	43	1.15(0.66,1.98)	1.63(0.87,3.02)
501-1000	47	88	0.77(0.48,1.24)	0.94(0.55,1.59)
1001-1500	15	14	1.56(0.70,3.43)	1.67(0.70,4.00)
>1501	70	102	1.00	1.00

*p<0.05 ** p<0.01

Obstetrics risk factors and FANC provision

The obstetric risk factors considered in this study are maternal age, number of pregnancies, number of births, history of abortion, still birth and neonatal deaths. No difference was found in the utilization of FANC among the stated obstetric factors according to this study finding.

The number of visits of the present pregnancy has revealed association with the provision of FANC. Women who had had four and above visits are 2.5 times more likely to be provided with FANC as compared to those with 1 to 3 visits OR; 2.54 with 95 %CI: 1.47, 4.38.

Table 7.Obstetric factors and provision of FANC among respondents in Addis Ababa public health centers, 2011.

	FANC provided			
Variable	**Yes**	**No**	**COR(95%CI)**	**AOR(95%CI)**
Mother's age				
15-24	74	99	1.00	1.00
25+	92	148	0.83(0.55,1.23)	0.77(0.50,1.19)
Gravidity(total No of pregnancies)				
1-2	128	184	1.00	1.00
3+	38	63	0.86(054,1.37)	0.89(0.50,1.60)
History of neonatal death				
Yes	14	23	0.89(0.44,1.79)	1.13(0.49,2.60)
No	152	224	1.00	1.00
History of abortion& still birth				
Yes	21	38	0.80(0.45,1.42)	0.89(0.46,1.72)
No	144	209	1.00	1.00
Total number of visits				
1-3	122	213	1.00	1.00
4+	43	34	2.20(1.33, 3.64)*	2.54(1.47,4.38)**
Months of pregnancy at first visit				
1-3	94	57	1.00	1.00
4-6	135	97	1.18(0.77,1.80)	1.36(0.85,2.19)
7-9	16	10	1.03(0.43,2.42)	1.31(0.51,3.37)

Adjusted for socio-demographic characteristics occupation, income, educational status, and marital status.
*p<0.05 ** p<0.01

Discussion

The study included pregnant women attending ANC in the selected health centers and exit interviews were made on consecutive women .Those mothers who were not volunteer were excluded from the study and the data collection continued by replacement method until the sample size for the respective health center was reached. A thorough supervision and discussions were made with the data collectors during the data collection period as one tool for maintaining the quality of data.

The time a woman seek antenatal care determines the kind of service to be provided and the time available to institute effective interventions critical to save the mother and the new born from dangers associated with pregnancy[5]. According to the findings of this study 52.6% of women made their first antenatal visit during their third trimester of pregnancy which was found to be one of the constraints in the provision of FANC.

The study also showed that physical examination was not done for 37.2% of women and two hundred twenty seven (55%) of the respondents were not told about the signs of pregnancy complications during any of their ante natal care visits. Health education was not given for 50.1% of the respondents during any of their ante natal visit and for those who were given health education (49.9%), the predominant topics dealt were Nutrition (73.8%), STI and HIV prevention (67.5%) Personal hygiene (63.6%). Recommendations on plan of birth were given for 54.7% of women.

The study revealed that about 40.2% of the women were provided with FANC with 95% CI: 35.5, 44.9 where as 59.8% of women were not. This finding is generally low as compared to the ANC coverage of the region (88.3%) [4]. The possible explanation for this may be the EDHS includes both the urban and rural ANC utilization and this study assessed only the urban women and it is also facility based when it is compared to the EDHS which is community based. This study may not represent Addis Ababa because it is not done in all of the public health centers of the city and the sample size is small.

The socio-demographic and health system factors associated were husband's educational level OR; 0.49 with 95% CI: 0.25, 0.97) and total number of ANC visits OR=2.54 and 95%CI: 1.47, 4.38 respectively. The chance of receiving FANC is by 0.5 times lesser in women whose husbands are in primary level of education than those with above secondary school level OR 0.49; with 95 %CI: 0.25, 0.97.This is consistent with the finding of a systematic review of literatures on factors affecting the utilization of antenatal care in developing countries: [24.] Concerning the total number of visits, women who had had four and above visits are 2.5 times more likely to be provided with FANC as compared to those with 1 to 3 visits OR; 2.54 with 95 %CI: 1.47, 4.38.

Half of women (52.6%) in the study who attended ANC services did so for the first time in their third trimester of the pregnancy. This is also in line with other study findings performed in similar settings which is explained as one of the factors that limit provision of FANC from the service providers' side.

In contrast to the findings of other studies in other similar settings, that revealed association between the obstetric factors and ANC utilization, this study doesn't reveal this association. This might be explained by low coverage of FANC, small sample size, problem in the sampling method.

If qualitative study using facility assessment through in-depth interviews of the sector in-charge, provider interviews, and structured observations of client-provider interactions, and ANC card reviews is done including all the public health centers of Addis Ababa, the study may provide a better information on the proportion of women who are provided with FANC, and the factors associated with its utilization.

Strength of the study

- Thorough supervision of the data collectors during data collection.
- High response rate.
- Use of primary data.

Limitation of the study

- Small sample size that limits further analysis particularly of the factors.
- Absence of enough questions that can adequately assess the obstetric factors and
- Shortage of resources particularly of time.

Conclusion

- FANC provision is generally low.
- FANC utilization showed significant association with husband's education and total number of visits.
- No association was found between the obstetric factors and FANC utilization.

Recommendation

- Further investigation with different approach particularly on the service providers side is encouraged
- Community mobilization to create awareness about the new services being offered during ANC is needed.
- Training providers in the concept of focused ANC is encouraged.

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Annex 1: Consent Form (English)

CONSENT FORM

Focused Ante natal care utilization research

(To be verbally read to all participants)

I want to thank you for taking your time to meet with me today. My name is Sr. Ayalnesh Megra

You are invited to be interviewed. This interview will help us learn more about the implementation of Focused ante natal care in public health centers of Addis Ababa. A number of pregnant mothers are selected for this interview. You are one of the mothers who are selected for this interview.

This research is being done by a graduating Master of Public Health (MPH) Student at Addis Continental Institute of Public Health and University of Gondar as a partial fulfillment for his degree.

If you agree to be interviewed, I will ask you some questions about yourself and some more about Focused antenatal care and its utilization in Addis Ababa. The total interview will take about ___ minutes. (To be filled after the pre-testing).

You are free to decide which questions to answer and which not to. You don't have to answer any question you don't want to. You may not know the answer to some of these questions, and it is fine to say you don't know.

Everything you tell me as part of this interview about what you know and believe shall be kept confidential. We will add up what everyone from this interview said, but we will not tell anyone else about what any single person told us. Nothing from this research will use your name or any other data that may identify your personality.

You are free to be interviewed or not. If you agree, we will continue. If not I will stop. You can also change your mind at any time, even if we started the interview.

If you have questions about the study, you can call Addis Continental Institute of Public Health at 0116526853

Before we finish this one and start the interview, do you have any questions?

If you do not have any questions, would you be willing to participate in this interview?

Thank you.

Participant agrees _____ Participant refuses _____

Name of Subject_____

Signature of Investigator_____

Date_____

Annex 2: Consent Form (Amharic)

በአዲስ አበባ ከተማ ውስጥ ያሉ የመንግስት ጤና ጣቢያዎች የአለም የጠየና ድርጅት ያዘጋጀውን አዲሱን የእርግዝና ምርመራ ዘዴ እየጠጠቀሙ መሆናቸውን ለማወቅ የሚደረግ ጥናት ለመሳተፍ ፈቃደኛነትን መግለጫ /ለሁሉም የጥናቱ ተሳታፊዎች በቃል የሚነበብ/

ግዜዎትን መስዋዕት አድርገው ከእኔ ጋር ለመገናኘት ፈቃደኛ በመሆንዎት በጣም አመሰግናለሁ። ስሜ ሲስተር አያልነሽ መግራ ይባላል።

ይህ ጥናት በአዲስአበባ ከተማ ውስጥ ያሉ የመንግስት ጤና ጣቢያዎች የአለም የጠየና ድርጅት ያዘጋጀውን አዲሱን የእርግዝና ምርመራ ዘዴ እየጠጠቀሙ መሆናቸውን ለማወቅ የሚደረግ ጥናት ነው። ለዚህም ይረዳን ዘንድ ብዙ የተመረጡ ነፍሰጡር እናቶች ያላቸውን አመለካከት ለማወቅ ቃለመጠይቅ በማድረግ ላይ እንገኛለን። እርስዎም ለዚህ ጥናት ለቃለ መጠይቅ ከተመረጡት እናቶች መካከል አንዱ ሆነዋል።

ይህ ጥናት የሚደረገው በጎንደር ዩኒቨርሲቲና በአዲስ ኮንቲነንታል የጤና አጠባበቅ ኢንስቲትዩት የሁለተኛ አመት ድህረ ምረቃ ተማሪ ነው።

በቃለ መጠይቁ ላይ ለመሳተፍ ፈቃደኛ ከሆኑ ስለራስዎትና በአዲስ አበባ ከተማ ውስጥ ያሉ የመንግስት ጤና ጣቢያዎች የአለም የጠየና ድርጅት ያዘጋጀውን አዲሱን የእርግዝና ምርመራ ዘዴ ምን ያህል በጥቅም ላይ እየዋሉ በመሆናቸው ዙሪያ አንዳንድ ጥያቄዎችን እጠ ይቅዎታለሁ። ቃለ መጠየቁ ------ ደቂቃ የሚወስድ ነው።

ከምንጠይቅዎት ጥያቄዎች መካከል መመለስ የሚፈልጉትን ብቻ የመመለስ፣ መመለስ የማይፈልጉት ካለ ያለመመለስ ይችላሉ። በሁዋላም ቢሆን በማንኛውም ሰአት ማቁዋረጥ ይችላሉ። መልሱን የማያውቁትን ጥያቄ «መልሱን አላውቀውም» ማለት ይችላሉ።

ስለሚያውቁትና ስለሚያምኑበት ነገር ለዚህ ቃለመጠየቅ የሚሰጡት መልስ በሙሉ በሚስጢር የሚያዝ ይሆናል። ሁሉም የዚህ ጥናት ተሳታፊዎች የሚነግሩን ነገር ተጨምቆ በአንድ ላይ ይቀርባል እንጂ ማንም የነገረን ነገር ለብቻ አይቀርብም ። የርስዎም ሆነ የሌሎች ስምና ማንነት ገላጭ ነገሮች በሙሉ አይገለጡም ።

በቃለመጠየቁ ለመሳተፍ ወይንም ላለመሳተፍ ለመወሰን ነፃ ነዎት ። ፈቃደኛ ከሆኑ ቃለመጠይቁን እንቀጥላለን። ካልሆኑ ደግሞ እናቁዋርጣለን። ቃለመጠየቁን ከጀመሩ በሁዋላም ቢሆን ለማቁዋረጥ ይችላሉ ።

ይህንን ጥናት በተመለከተ ማንኛውም ጥያቄ ካለዎት በስልክ ቁጥር 0116526853 በመደወል መጠየቅ ይችላሉ ።

ሌላ ሊጠይቁ የሚፈልጉት ጥያቄ ካለዎት ለመጠየቅ ይችላሉ ። ከሌለዎት በጥናቱ ላይ ለመሳተፍ ፈቃደኛነትዎን እጠይቃለሁ ። አመሰግናለሁ ።

ተስማምተዋል ---------- አልተስማሙም ----------

ፊርማ ---------- ቀን ----------

Annex 3. Questionnaires in English

Questionnaire for assessment of utilization of focused antenatal care and factors associated in public health centers of Addis Ababa

(Adapted from the ETHIOPIAN DEMOGRAPHIC AND HEALTH SURVEY 2OO5)

Identification

Name of the health center: _____

Name of the sub city_____

Date of interview: _____

Out come of the interview:-

1- completed
2- partially completed
3- not volunteer
4- other specify_____

Starting time _____

Ending time_____

Number of visits:-

1- first
2- second
3- third
4- fourth
5- Fifth and above

SECTION I SOCIO DEMOGRAPHIC CHARACTERISTICS

S. No	Questions	Alternative choices for response	skip
1o1	How old are you now? (year completed)	_____ years old	
102	Have you ever attended school?	YES . . . . . .1 NO 2	2→104
103	What is the highest grade you completed?	GRADE _____ TECH. /VOC. CERTIFICATE . . . . . 1 UNIVERSITY/COLLEGE DIPLOMA . . . ...2 UNIVERSITY/COLLEGE DEGREE OR HIGHER. . .3	
104	What is your ethnicity?	AMHARA.....1 OROMO.....2 TIGRE.....3 GURAGHE.....4 OTHERS SPECIFY.....5	
105	What is your religion?	ORTHODOX..... 1 CATHOLIC . . . . . 2 PROTESTANT . . . . . 3 MUSLIM . . . . . 4 OTHER _____ (SPECIFY)	
106	What is your occupation?	HOUSE WIFE.....1 MAID SERVANT.....2 CIVIL SERVANT.....3 PRIVATE(NGO).....4 MERCHANT.....5 STUDENT.....6 OTHERS SPECIFY_____	
107	What is your average income per month?	_____ BIRR	
108	What is your marital status now: are you widowed, divorced, or separated?	MARRIED.....1 NOT MARRIED.....2 DIVORCED.....3 WIDOWED.....4 SEPARATED.....5 OTHER SPECIFY_____	
109	Has your husband ever attended school?	YES . . . . . .1 NO 2	2→111
110	What is the highest grade your husband completed?	GRADE _____ TECH. /VOC. CERTIFICATE . . . . . 1 UNIVERSITY/COLLEGE DIPLOMA . . . ...2 UNIVERSITY/COLLEGE DEGREE OR HIGHER. . .3	
111	What is the main occupation of your husband?	MAID SERVANT.....1 CIVIL SERVANT.....2 PRIVATE(NGO).....3 MERCHANT.....4 STUDENT.....5 OTHERS SPECIFY_____	
112	What is your husband's average income per month?	_____ BIRR	
113	what is your family size	_____	
114	How long will it take for	By car _____hrs	2→116

	you to reach to the health center from your home?	On foot_____hrs	
115	How much will you pay for transportation?	_____	
116	How do you feel about the cost of transportation?	Expensive.....1 Fair.....2 Cheap.....3	
	SECTION 2. REPRODUCTION		
201	Have you ever given birth?	YES . . . . . 1 NO 2	2→204
202	Have you ever given birth to a boy or girl who was born alive but later died? IF NO, PROBE: Any baby who cried or showed signs of life but did not survive?	YES . . . . . 1 NO 2	
203	Total number of births	Number_____	
204	Are you pregnant now?	YES . . . . . 1 NO . . . . . 2 UNSURE 3	2→207
205	How many months pregnant are you?	MONTHS /____/____/	
206	At the time you became pregnant did you want to become pregnant then, did you want to wait until later, or did you not want to have any (more) children at all?	THEN . . . . . 1 LATER . . . . . 2 NOT AT ALL 3	
207	Have you ever had a pregnancy that miscarried, was aborted, or ended in a stillbirth?	YES . . . . . 1 NO 2	
208	Total number of pregnancy	_____	
	SECTION 3 ANTE NATAL CARE		
301	Did you see anyone for antenatal care for this pregnancy?	YES . . . . . 1 NO 2	2→303
302	IF YES: Whom did you see? Anyone else? PROBE FOR THE TYPE OF PERSON AND RECORD ALL PERSONS SEEN	HEALTH PROF.....1 TRAINED TRAD BIRTH ATTEN.....2 UNTRAINED TRAD.BIRTH ATTEN.....3 COMM. HEALTH AGENT.....4	

		NO ONE.....5 OTHER (SPECIFY)_____	
303	How many months pregnant were you when you first received antenatal care for this pregnancy?	MONTHS_____	
304	How many times did you receive antenatal care during this pregnancy?	NUMBER OF TIMES_____	
305	During this pregnancy, was physical examination done for you at each visit?	YES.....1 NO.....2	
306	As part of your antenatal care during this pregnancy, were any of the following done? Were you weighed? Was your height measured? Was your blood pressure Measured? Did you give a urine sample? Did you give a blood sample?	YES NO WEIGHT . . . 1 2 HEIGHT ..... 1 2 BP . . . . . 1 2 URINE . . . . . 1 2 BLOOD . . . 1 2	
307	During (any of) your antenatal care visit(s), were you told about the signs of pregnancy complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW.....88	2→309
308	Were you told where to go if you had any of these complications?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 88	
309	During this pregnancy, were you given an injection in the arm to prevent the baby from getting tetanus, that is, convulsions after birth?	YES . . . . . 1 NO . . . . . 2 DON'T KNOW 88	2→312
310	During this pregnancy, how many times did you get this tetanus injection?	ONCE.....1 TWO OR MORE.....2	
311	Did you have a vaccination card /paper where TT injections have been recorded? If yes, may I see it please?	YES, SEEN.....1 YES,NOT SEEN.....2 NO CARD/PAPER.....3	
312	During this pregnancy, were you given or did you buy any iron tablets SHOW TABLETS	YES . . . . . 1 NO . . . . . 2 DON'T KNOW.....88	2→314

313	During this pregnancy, for how long did you take these tablets?	_____days _____months DON'T KNOW.....88	
314	Was health education given during each visit?	YES.....1 NOT.....2 DON'T KNOW.....88	2→316
315	If health education was given on what topic?	YES NO PREGNANCYANDCHILD BIRTH.....1 2 NUTRITION.....1 2 PERSONALHYGIENE.....1 2 STIAND HIV PRVENTION.....1 2 ANC..... 1 2 FAMILY PLLANING.....1 2 BABY CARE . . ..1 2 BREAST FEEDING. .....1 2 DON'T KNOW.....88 OTHERS SPECIFY_____	
316	Did you ever pay for ANC during this pregnancy?	YES.....1 NO.....2	2→318
317	If yes, how do you feel about the payment for ANC?	EXPENSIVE.....1 FAIR.....2 CHEAP.....3	
318	During this pregnancy, were you given instructions for delivery/plan of birth?	YES.....1 NO.....2 DON'T KNOW.....88	
319	During this pregnancy, were recommendations given to you about breast feeding?	YES.....1 NO.....2 DON'T KNOW.....88	
320	During this pregnancy, were recommendations given to you about contraception?	YES.....1 NO.....2 DON'T KNOW.....88	
321	Is the antenatal visit time convenient for you?	YES.....1 NO.....2 DON'T KNOW.....88	
322	How long will the health workers take for each visit?	_____	
323	How long will you wait at each antenatal visit?	_____	
324	How do you see the quality of care provided by the health workers?	VERY GOOD.....1 GOOD.....2 FAIR .....3 BAD .....4 VERY BAD.....5	
325	How is the attitude of the health workers towards the service?	VERY GOOD.....1 GOOD.....2 FAIR.....3 BAD.....4 VERY BAD.....5	
326	When is your next appointment scheduled?	_____	

Annex 4 Questionnaires in Amharic

ክትትል የመጀመርያ--------- ድጋሜ(ይዘርዘር)----------

ክፍል አንድ፡- ማህበራዊ ሁኔታ

ተ.ቁ	ጥያቄ	አማራጭ መልሶች	ይዘለል
101	እድሜዎ ስንት ነው? /ያጠናቀቁት አመት/	_____አመት	
102	ትምህርት ተምረዋል?	አዎ.....1 የለም.....2	2→104
103	መጨረሻ ያጠናቀቁት የትምህርት ደረጃ?	ክፍል_____ ሰርተፊኬት.....1 ዲፕሎማ.....2 ዲግሪና ከዚያ በላይ.....3	
104	ብሔረሰብዎ ምንድን ነው?	አማራ.....1 ኦሮሞ.....2 ትግራይ.....3 ጉራጌ.....4 ሌላ ከሆነ ይገለፅ_____	
105	ሐይማኖትዎ ምንድን ነው?	ኦርቶዶክስ.....1 ካቶሊክ.....2 ፕሮቴስታንት.....3 ሙስሊም.....4 ሌላ ከሆነ ይገለፅ_____	
106	ስራዎ ምንድን ነው	የቤት እመቤት.....1 ሰው ቤት ሰራተኛ.....2 የመንግስት ሰራተኛ.....3 የግል ድርጅት ሰራተኛ.....4 ነጋዴ.....5 ተማሪ.....6 ሌላ ካለ ይገለፅ_____	
107	የወር ገቢዎ በአማካኝ ስንት ነው /ድጎማንም ይጨምራል/	_____ብር	
108	በአሁኑ ጊዜ ያለዎት የጋብቻ ሁኔታ	ያገባ.....1 ያላገባ.....2 ፈት.....3 የሞተበት.....4 የተለያየ.....5 ሌላ ከሆነ ይገለፅ_____	
109	ባለቤትዎ ትምህርት	አዎ.....1	

	ተምረዋል	የለም..... 2	2→110
110	መጨረሻ ያጠናቀቁት የባለቤትዎ ትምህርት ደረጃ ስንት ነው	ክፍል_____ ሰርተፊኬት.....1 ዲፕሎማ.....2 ዲግሪና ከዚያ በላይ.....3	
111	የባለቤትዎ ዋና ስራ ምንድን ነው	ሰው ቤት ሰራተኛ.....1 የመንግስት ሰራተኛ..... 2 የግል ድርጅት ሰራተኛ..... 3 ነጋዴ.....4 ተማሪ.....5 ሌላ ካለ ይገለፅ_____	
112	በአማካኝ የባለቤትዎ የወር ገቢ ስንት ነው	_____ብር	
113	የቤተሰብዎ አባላት ቁጥር ስንት ነው	_____	
114	ከቤትዎ እስከ ጤና ጣቢያ ለመድረስ ምን ያህል ጊዜ ይፈጅብዎታል	በትራንስፖርት_____ደቂቃ _____ሰኣት በእግር_____ደቂቃ _____ሰኣት	
115	ከቤትዎ እስከ ጤና ጣቢያ ለመድረስ ምን ያህል ገንዘብ ያወጣሉ	_____ብር _____ሳንቲም	
116	ለትራንስፖርት የሚያወጡትን ገንዘብ እንዴት ያዩታል	ውድ ነው.....1 ደህና ነው.....2 ርካሽ ነው.....3	

ክፍል ሁለት:-እርግዝና እና ወሊድ

201	ከዚህ በፊት ወልደዋል?	አዎ .....1 የለም.....2	
202	በህይወት ተወልዶ የሞተብዎ ወይም እንደተወለደ አልቅሶ ወይም የመኖር	አዎ.....1 የለም.....2	

	ምልክት አሳይቶ የሞተብዎ አለ?		
203	በአጠቃላይ ስንት ልጆች አሉዎት?	_____	
204	ነብሰ ጡር ነዎት?	አዎ.....1 የለም.....2 እርግጠኛ አይደለሁም.....3	
205	ስንት ወርዎ ነው?'	ወራት_____	
206	ይህ እርግዝና ሲፈጠር አቅደውት ነበር ወይስ መቆየት ያስቡ ነበር ወይስ እስከመጨረሻው መውለድ አይፈልጉም ነበር?	ፈልጌ ነው.....1 መቆየት ፈልግ ነበር.....2 እስከመጨረሻው መውለድ አልፈልግም ነበር.....3	
207	የተጨናገፈ ወይም ያስወረድዎ ወይም ከሰባት ወር በሁዋላ ሞቶ የተወለደ አለዎት?	አዎ.....1 የለም.....2	
208	ባጠቃላይ ስንት ግዜ አርግዘዋል?	_____	
	ክፍል ሶስት:- የእርግዝና ምርመራ		
301	በዚህ እርግዝና ጊዜ ያማከሩት ወይም የነብሰጡር ምርመራ ያደረገልዎ ሰው አለ?	አዎ.....1 የለም.....2	
	ካለ ማን?	የጤና ባለሞያ.....1 ሌላ ሰው.....2 የሰለጠነ የልምድ አዋላጅ.....3 ያልሰለጠነ የልምድ አዋላጅ.....4 የህበረተሰብ ጤና ተጠሪ.....5 ሌላ ካለ ይገለፅ.....6 ማንንም.....7	
302	በዚህ እርግዝና ጊዜ ለመጀመሪያ ምርምራ ሲመጡ የሥንት ወር ነፍሰጡር ነበሩ?	ወር .....1 አላውቀውም 88	
303	በዚህ እርግዝና ስንት ጊዜ የነፍሰጡር ምርመራ አደረጉ?	ብዛት.....1 አላውቀውም.....88	
304	በዚህ እርዝና ጊዜ በያንዳንዱ ምርመራ ወቅት ሙሉ የሰውነት ምርመራ ተደርጎልዎታል?	አዎ ----------1 የለም----------2	

305	በእርግዝና ምርመራዎ ወቅት የሚከተሉት ምርመራዎች ተደርጎሎታል ወይ? ክብደትዎን ተመዝነዋል? ቁመትዎ ተለክቷል? የደም ግፊትዎ ተለክቷል ? የሽንት ምርመራ ተደርጎልዎታል ? የደም ምርመራ ተደርጎልዎታል?	አዎ አይ ክብደት 1 2 ቁመት 1 2 የደም ግፊት 1 2 የሽንት ምርመራ 1 2 የደም ምርመራ 1 2	
306	በየትኛውም የእርግዝና ምርመራዎ ወቅት ስለ አደገኛ የእርግዝና ምልክቶች ተነግሮታል?	አዎ ----------1 የለም----------2 አላውቅም----------88	
307	እነዚህ ምልክቶች ከተከሰቱ የት እንደሚሄዱ ተነግሮዎታል?	አዎ ----------1 የለም----------2 አላውቅም----------88	
308	በዚህ እርግዝና ጊዜ በክንድዎ ላይ ልጅ ዎትን ከኩፍኝ የሚከላከል ክትባት ተሰጥቶዎት ነበር?	አዎ ----------1 አይ----------2 አላውቅም----------88	310
309	በዚህ እርግዝና ጊዜ ስንት ጊዜ ተከተቡ?	አንድ ጊዜ----------1 ሁለት ጊዜ ወይም ከሁለት ጊዜ በላይ----------2	
310	የክትባት ካርድ አሎት? ካሎት ልየው?	አዎ /ታይቷል--------1 አዎ /አልታየም-------2 ካርድ የለኝም---------3	
311	በዚህ እርግዝና ጊዜ የደም ማነስ መከላከያ ኪኒን ገዝተዋል? ታብሌቱን አሳዩ	አዎ ታይቷል---------1 አዎ አልታየም---------2 አላውቅም----------88	
312	በዚህ እርገዝና ጊዜ መድሐኒቱን ለምን ያህል ጊዜ ወሰዱ?	---------- ቀን _____ወር አላውቅም.....88	
313	በዚህ እርግዝና ጊዜ የጤና ትምህርት ተሰጥቶዎታል?	አዎ ----------1 የለም----------2 አላውቅም----------88	314
314	የጤና ትምህርት ተሰጥቶዎት ከነበር በምን እርእስ ላይ ነበር?	አዎ አይ እርግዝና እና ወሊድ 1 2 አመጋገብ 1 2 የግል ንፅህና 1 2 የአባላዘር በሽታና ኤችአይቪን ስለመከላከል	

		ስለ እርግዝና ምርመራ 1 2 ስለ ወሊድ መከላከያ 1 2 ስለ ህፃን እንክብካቤ 1 2 ስለ ጡት ማጥባት 1 2 አላውቀውም .....88 ሌላ ካለ ይዘርዝር_____	
315	በዚህ እርግዝና ምርመራ ጊዜ ከፍለው ያውቃሉ?	አዎ ----------1 የለም---------- 2 →	317
316	ከከፈሉ ስለ ክፍያው ምን ተሰማዎት?	ውድ ነው----------1 ደህና ነው 2 ርካሽ ነው----------3	
317	በዚህ እርገና ጊዜ የት መውለድ እንዳለብዎት ምክር ተሰጥቶዎታል?	አዎ ----------1 የለም----------2 አላውቅም----------88	
318	በዚህ እርገና ጊዜ ስለ ጡት ማጥባት ምክር ተሰጥቶዎታል ?	አዎ ----------1 የለም----------2 አላውቅም----------88	
319	በዚህ እርገና ጊዜ ስለ እርግዝና መከላከያ ምክር ተሰጥቶዎታል ?	አዎ ----------1 የለም----------2 አላውቅም----------88	
320	በጤና ጣቢያው እየተሰጠ ያለው የእርግዝና ምርመራ ሰአት አመቺ ነው ይላሉ?	አዎ ----------1 አይደለም----------2 አላውቅም----------88	
321	የአንድ ጊዜ የእርግዝና ምርመራ በአማካኝ ምን ያህል ሰአት ይፈጅብዎታል?	_____	
322	በእያንዳንዱ የእርግዝና ምርመራ ወቅት ወደ ምርመራ ክፍል ለመግባት ምን ያህል ሰአት ይጠብቃሉ?	_____	
323	በጤና ባለሙያዎቹ የሚሰጠውን የህክምና አገልግሎት ጥራት እንዴት ያዩታል?	በጣም ጥሩ----------1 ጥሩ----------2 መካከለኛ----------3 መጥፎ----------4 በጣም መጥፎ----------5	
324	የጤና ባለሙያዎቹ ለህክምና አገልግሎቱ ያላቸውን አመለካከት እንዴት ያዩታል?	በጣም ጥሩ----------1 ጥሩ----------2 መካከለኛ----------3 መጥፎ----------4 በጣም መጥፎ----------5	
325	የሚቀጥለው ቀጠሮዎት መቼ ነው?	_____	

Declaration

I, the undersigned declare that this thesis is my original work in partial fulfillment of the requirement for the degree of Master of Public Health. I also declare that it has never been presented in this or any other university and that all resources and materials used in the thesis have been duly acknowledged.

Student Name: _____

Signature: _____

Place of submission: _____

Date of submission: _____

This thesis has been submitted with my approval as a university advisor.

Advisor Name: _____

Signature: _____

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